

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO**

UNITED STATES OF AMERICA,

Plaintiff,

vs.

Cr. No. 10-2734 JCH

JOHN CHARLES McCLUSKEY,

Defendant.

MEMORANDUM OPINION AND ORDER

This matter is before the Court on Defendant's *Motion to Exclude Serology Evidence, and Request for Daubert Hearing* [Doc. 424]. In his motion, Defendant argues that the Court should exclude evidence of phenolphthalein testing for blood on various pieces of evidence collected by the Government. He contends that phenolphthalein is acceptable only as a presumptive test for the presence of blood, and is inadmissible in the absence of evidence that a second, confirmatory test was performed to verify the presence of blood. The Government appears to concede that evidence of phenolphthalein testing is admissible only where such testing was used merely as a presumptive test. However, the Government fails to explain what further tests, if any, were performed to confirm the presence of blood. For the reasons set forth more fully herein, in light of the evidence currently before it the Court concludes that the motion should be granted.

LEGAL STANDARD

The admission of expert testimony is governed by Federal Rule of Evidence 702 and the Rule's interpretation by the Supreme Court in *Daubert*, *Joiner*, and *Kumho Tire*. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993); *General Elec. Co. v. Joiner*, 522 U.S. 136 (1997); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). In 2000 and again in 2011, Rule 702 was amended

in response to *Daubert* and “the many cases applying [it], including *Kumho Tire*” Advisory Committee Notes relating to the 2000 Amendments to Rule 702. In its current form, Rule 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

The proponent of the evidence has the burden of showing that expert evidence is admissible, by a preponderance of proof. *Daubert*, 509 U.S. at 592 n.10; *United States v. Orr*, 692 F.3d 1079, 1091 (10th Cir. 2012); Fed. R. Evid. 702 advisory committee’s note to 2000 amendment. The trial court has “wide latitude” in exercising its discretion to admit or exclude expert testimony. *Bitler v. A.O. Smith Corp.*, 400 F.3d 1227, 1232 (10th Cir. 2004); *see Kumho*, 526 U.S. at 147 (“broad latitude” in determining how to determine reliability and in ultimate reliability determination).

The trial court “generally must first determine whether the expert is qualified.” *United States v. Avitia-Guillen*, 680 F.3d 1253, 1256 (10th Cir. 2012) (quoting *United States v. Nacchio*, 555 F.3d 1234, 1241 (10th Cir. 2009) (en banc)). “If the expert is sufficiently qualified, then ‘the court must determine whether the expert’s opinion is reliable by assessing the underlying reasoning and methodology.’” *Id.* (quoting *Nacchio*, 555 F.3d at 1241). Trial courts have the responsibility of ensuring that scientific testimony or evidence is both relevant and reliable. *Daubert*, 509 U.S. at 589. “Relevant evidence ‘means evidence having any tendency to make the existence of any fact

that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” *Bitler*, 400 F.3d at 1234 (quoting Fed. R. Evid. 401). The trial court acts as gatekeeper, making “a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” *Daubert* 509 U.S. at 592-93. The gatekeeping function requires a “sufficiently developed record” to allow a determination of whether the trial court “properly applied the relevant law.” *Avitia-Guillen*, 680 F.3d at 1258 (quoting *United States v. Nichols*, 169 F.3d 1255, 1262 (10th Cir. 1999)).

BACKGROUND FACTS

On September 9, 2011, the Court entered a *Scheduling Order* [Doc. 220] setting January 20, 2012 as the “[d]eadline for government to complete all summaries and provide all reports on all experts, with all foundational data to be disclosed by February 17, 2012.” On January 20, 2012, the Government filed its *Notice of Intention to Offer Expert Testimony* [Doc. 261]. That document did not set forth the Government experts’ summaries, reports, and foundational data as required by the Scheduling Order. Instead, the Government stated it would provide those items to the Defendant at a later time. In its *Notice of Intention to Offer Expert Testimony* the Government did set forth a list of 16 expert witnesses and for each of those a one-sentence summary of subject matter of his or her testimony. Then, on March 30, 2012—over two months after the Court’s January 20, 2012 deadline, the Government filed its *Supplemental Notice of Intent to Offer Expert Testimony* [Doc. 386]. That document lists only eleven expert witnesses, along with a paragraph summary of the subject matter of the testimony of each. For two of those witnesses, Agent Richard H. Mathews and Carrie Zais, the Government states that it expects those witnesses to testify to “the use of Phenolphthalein to confirm the presence of blood in the [Haases’] truck.” (emphasis added).

In each of her reports of August 30, 2010; September 30, 2010; December 22, 2010; and April 27, 2011 (each of which the Court has reviewed), Carrie Zais, a forensic scientist with the New Mexico Department of Public Safety Forensic Laboratory, stated that “blood was indicated” on certain items of evidence collected by the Government. Her reports do not indicate the test or tests that Zais used to reach these conclusions. According to McCluskey, Zais’ notes document the phenolphthalein testing she performed on certain items of evidence but do not set forth any further tests she may have performed to confirm the presence of blood on items that tested “pheno positive.” The Government does not contradict this representation. In addition, McCluskey notes in his motion that Zais tested certain other items not with phenolphthalein, but with Leucomalachite Green, another test used to determine whether blood is present. McCluskey points out that the Government did not mention Leucomalachite Green tests in its *Supplemental Notice* and raises the question of whether the Government intends to offer the results of those tests into evidence at trial. The Government’s response does not address the issue. Finally, McCluskey raises the question of whether the Government intends to offer evidence of phenolphthalein testing on evidence that does not relate to the Haases’ pickup truck, as that issue is not addressed in the Supplemental Notice or in the Government’s response to the motion.

Although the Court has not seen reports written by Agent Mathews, McCluskey represents that neither those reports nor the related foundational materials mention phenolphthalein testing or what led Mathews to conclude that the testing confirms the presence of blood. Once again, the Government does not contradict this representation.

DISCUSSION

In his motion and supporting brief, McCluskey argues that the Government should not be permitted to offer evidence that blood was found inside the cab of the Haases’ truck or on certain

firearms and other items of evidence seized from McCluskey and others. McCluskey argues that this serology evidence is inadmissible, regardless of whether offered as (1) a presumptive test, standing alone, without further confirmatory testing, or (2) as a presumptive test supported by further confirmatory tests that the Government has not disclosed to McCluskey. In his prayer, McCluskey asks the Court to “exclude the government’s phenolphthalein testing evidence.” Doc. 424 at 21.

I. PHENOLPHTHALEIN IS A PRESUMPTIVE TEST ONLY

McCluskey argues that the phenolphthalein test used by Zais is a “presumptive” test capable of only a preliminary identification of the presence of blood. This is because phenolphthalein may render false positive results. According to McCluskey, a positive indication for blood on a phenolphthalein test must be confirmed by another, more reliable test. McCluskey further points out that the protocols of the New Mexico Department of Public Safety’s Forensic Laboratory, as well as those of forensic crime laboratories throughout the United States, also describe phenolphthalein as a presumptive test, not a confirmatory test.

In its response, the Government agrees with McCluskey that phenolphthalein is a merely presumptive test. *See* Doc. 486 at 4-5. The Government further states that it made an error in its Supplemental Notice of Intent to Offer Expert Testimony, which should have stated that “the use of phenolphthalein *led* to confirm the presence of blood in the pickup truck.” *Id.* (emphasis in original). Thus, although its response brief does not say so explicitly, the strong suggestion is that the Government does not intend to present phenolphthalein testing as conclusive evidence of the presence of blood, but rather as a first step that led to further testing to confirm the presence of blood on certain items of evidence.

Thus, to the extent that McCluskey seeks in his motion to exclude evidence of

phenolphthalein testing in the absence of evidence of confirmatory tests, the motion will be granted.

II. EVIDENCE OF THE PRESENCE OF BLOOD OBTAINED THROUGH PRESUMPTIVE TESTS AND LATER CONFIRMED BY OTHER METHODS

Next, McCluskey moves to exclude expert opinion testimony that blood was found on certain pieces of evidence, even if such conclusions are supported by both presumptive and confirmatory tests. McCluskey points out that on the record provided to him in discovery, there is no indication that a confirmatory test was ever performed, rendering the results of the phenolphthalein test unreliable, irrelevant, and inadmissible under *Daubert*. He also contends that the phenolphthalein evidence should be excluded under Rule 403 because the weak probative value of the evidence is substantially outweighed by the danger of unfair prejudice, confusion of the issues, and misleading the jury. Finally, McCluskey argues that to the extent that the Government has evidence of any confirmatory blood test or tests that were performed, it has failed to disclose that evidence to McCluskey and therefore the evidence should be excluded because the Government has failed to meet its disclosure obligations under Rule 16 of the Federal Rules of Criminal Procedure. The Court agrees with McCluskey on all of the foregoing arguments, and therefore will grant his motion.¹

The Court begins with McCluskey's first argument—that the Government's evidence of phenolphthalein tests is unreliable, irrelevant, and inadmissible under *Daubert*. Indeed, in its response the Government has made absolutely no effort to demonstrate the reliability and relevance of phenolphthalein testing or to demonstrate its admissibility under *Daubert*. While essentially

¹ Having decided the motion on other grounds, the Court declines to address McCluskey's argument that the phenolphthalein evidence should be excluded under the Fifth, Sixth, and Eighth Amendments to the United States Constitution. *Spector Motor Service, Inc. v. McLaughlin*, 323 U.S. 101, 105 (1944) ("If there is one doctrine more deeply rooted than any other in the process of constitutional adjudication, it is that we ought not to pass on questions of constitutionality . . . unless such adjudication is unavoidable.").

conceding that presumptive phenolphthalein testing has no relevance in the absence of confirmatory tests, Doc. 486 at 4-5, the Government fails to demonstrate—either through affidavits, expert witness reports, lab notes, etc.—that Zais or anyone else conducted such confirmatory tests. Instead, the Government offers conclusory statements in its brief. For example, the Government states that after the alleged murder weapon, firearm IB22, tested presumptive positive for blood on the underside of the slide above the barrel (sample IB22E), Zais performed DNA testing on the substance in sample IB22E. Doc. 486 at 3. According to the Government, that DNA testing (using the Applied Biosystems AmpF/STR Identifiler PCR Amplification Kit on a GeneAmp PCR System 9700 thermal cycler) revealed that to a reasonable degree of scientific certainty that Defendant is the source of the DNA on swab IB22E. However, nothing in the Government’s response indicates that the above-described DNA tests confirmed that the cells that Zais used to perform DNA testing were *blood* cells, as opposed to skin cells or any other cell found in the human body that contains DNA. Thus, it is far from clear how the DNA testing performed by Zais confirmed the presence of *blood* on IB22E. Indeed, if the DNA tests performed by Zais reveal that information, the Government has failed to explain how. In that same vein, with regard to the “numerous other swabs of items which had tested presumptive positive for blood in the Haases’ pickup truck,” the Government merely states in conclusory fashion that Zais “confirmed the presence of blood and she was able to obtain a DNA profile.” Doc. 486 at 4. Entirely absent from the Government’s response is any explanation of *how* Zais confirmed the presence of blood and what tests she performed in order to do so. Again, that Zais found human DNA in the swabs does not necessarily, to this Court’s knowledge, mean that the DNA originated in blood cells. If there is a way in which Zais made that determination through the DNA tests she performed, it has not been explained to McCluskey or to the Court. The Government has pointed to nothing in Zais’ reports or notes that would fill this gap.

The Government has not offered an affidavit from Zais explaining any steps she may have taken to confirm the presence of blood on any piece of evidence or in any swab sample. Like McCluskey, the Court “is still in the dark about what blood identification procedures were used in this case, what the results of those procedures were, [and] what conclusions were reached . . .” Doc. 530 at 2. As the proponent of the blood evidence, the Government has the burden to demonstrate its relevance and reliability. Having failed to do so by showing that presumptive positive phenolphthalein results were confirmed by later testing, the Government may not offer the evidence at trial.

Despite having conceded that phenolphthalein tests are merely presumptive and must be confirmed by other tests, the Government makes a somewhat feeble attempt to demonstrate the reliability of phenolphthalein. *See* Doc. 486 at 10-12. In doing so it cites several articles or studies ostensibly discussing the reliability of phenolphthalein, but provides the Court with copies of none of these sources. Defendant disputes the Government’s interpretation of the articles, but with no copies of the documents upon which the Government relies, the Court is in no position to evaluate whether the cited sources aid the Government’s cause and must disregard them. *See United States v. Rodriguez-Felix*, 450 F.3d 1117, 1126 (10th Cir. 2006) (“The requirements of *Daubert* are not satisfied by casual mention of a few scientific studies, which fail to demonstrate that an expert’s conclusions are grounded in established research, recognized in the scientific community, or otherwise accepted as scientific knowledge.”). The Government then cites a number of cases from state and federal courts that have admitted evidence of phenolphthalein testing. In some of these cases, the Court concluded that the testing was admissible as a presumptive indicator of blood, but did so with very little analysis of the reliability of the evidence, much less a thorough *Daubert* analysis. *See State v. Moseley*, 336 N.C. 710 (1994); *United States v. Schlamer*, 47 M.J. 670 (N.M. Ct. Crim. App. 1997) (allowing phenolphthalein evidence for the limited purpose of helping to

corroborate defendant's confession).; *DiBenedetto v. Hall*, 176 F. Supp. 2d 45, 63-64 (D. Mass, 2000) (denying habeas relief); *Hernandez v. Addison*, 2006 WL 2489349 at *13-14 (W.D. Okla. 2006) (denying habeas relief). In other cases, the Court admitted evidence of the phenolphthalein testing, but did so with a great deal more information about the procedures used and results obtained by the expert than what the Government has presented here. *See, e.g., State v. Stenson*, 940 P.2d 1239, 1264 (Wash. 1997) ("We conclude the trial court correctly admitted the results of the phenol testing, which were supported by the forensic scientist's testimony that the stains on the pants looked like blood by visual inspection and under a microscope."). On the limited record that the Government has provided, these cases do not persuade the Court to alter its conclusions as to the reliability of the phenolphthalein evidence.

Second, the Court agrees with McCluskey that the phenolphthalein evidence should be excluded under Rule 403 because the weak probative value of the evidence is substantially outweighed by the danger of unfair prejudice, confusion of the issues, and misleading the jury. The Government does not dispute that the phenolphthalein test is merely presumptive because it is susceptible to a high rate of false positive results. As such, its probative value is extremely low, particularly in the face of an utter lack of confirmatory tests. At the same time, if the evidence is admitted there is a very high danger of unfair prejudice to McCluskey, confusion of the issues, and misleading the jury. Jurors, who are lay persons unaccustomed to the intricacies of the scientific principles behind blood testing and other elements of serology, could easily be misled into wrongly believing that the phenolphthalein test was reliable. Thus, the evidence should be excluded under Rule 403 of the Federal Rules of Evidence.

Third, the Court turns to McCluskey's argument that the phenolphthalein evidence should be excluded because the Government has failed to meet its disclosure obligations under Rule 16.

Although to date the Court has not been persuaded by Defendant's various Rule 16 arguments, in this particular instance it does appear that the Government has not made adequate Rule 16 disclosures. The Government's protestations to the contrary ring hollow. The Government states, again in conclusory fashion, that it provided McCluskey with Zais' reports, unspecified foundational data, electronic data files, and internal and external audits in early 2012. Doc. 486 at 6. The Government does not say how any of these materials illuminate the questions of whether, and how, Zais or anyone else confirmed the presence of blood indicated through presumptive testing. And while the Government declares that "presumptive testing was used throughout this case," and "is duly noted within [Zais'] report and foundational data," Doc. 486 at 7, it provides no citations to the record where one could find reference to such tests. The Government also fails to provide citations to the reports and foundational materials that document the performance of confirmatory testing. If such confirmatory testing was performed, it appears to have been neither documented, disclosed, or described to McCluskey. Accordingly, the Government failed to meet its obligations under Rule 16, thereby depriving McCluskey of the opportunity to prepare for trial. Thus, the evidence should not be admitted.

Finally, the Court notes that despite not having made any effort to provide the Court with any written record upon which to exercise its gatekeeping function under *Daubert*, the Government opposes holding a hearing on McCluskey's motion. Doc. 486 at 13. By both failing to make an effort to satisfy its burden to demonstrate admissibility of the serology evidence and opposing an evidentiary hearing, the Government apparently has no further information for the Court and has been fully heard. The bare conclusions asserted in the Government's response brief are simply inadequate.

IT IS THEREFORE ORDERED that Defendant's *Motion to Exclude Serology Evidence*,

and Request for Daubert Hearing [Doc. 424] is **GRANTED**, and the Government is prohibited from introducing evidence of phenolphthalein testing at trial.


UNITED STATES DISTRICT JUDGE